



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/760,281 | 01/21/2004 | Wen-Ho Chen | MR2349-984 | 9837 |
| 4586 | 7590 | 03/17/2006 | EXAMINER | |
| ROSENBERG, KLEIN & LEE 3458 ELLICOTT CENTER DRIVE-SUITE 101 ELLIOTT CITY, MD 21043 | | | REHM, ADAM C | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2875 | |

DATE MAILED: 03/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | |
|------------------------------|-----------------|--------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 10/760,281 | CHEN ET AL. |
| Examiner | Art Unit | |
| Adam C. Rehm | 2875 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 28 December 2005.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-30 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

| | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date: _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date: _____ | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

1. Claims 1, 14 and 24 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter that was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The amendment includes language outside the scope of the original disclosure, i.e. "LED units...connected in a shared manner to LEDs of like color", per Line 6, and "the control unit being operable to adaptively control", per Line 7. While Fig. 2 illustrates a schematic between LEDs (22A-22H) and controllers (24A-24C), the controllers appear to be connected to every LED as opposed to LEDs "of like color."

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical

Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 1-5, 8, 9, 14-18 and 24-28 are rejected under 35 U.S.C. 102(e) as being anticipated by WANG ET AL. (US 2005/0128767), which provides:

- A thermally-conductive printed circuit board with a plurality of side faces (4, Fig. 4);
- A plurality of RGB LED units with required circuitry (anode, cathode, pads, pins) arranged on one side of the PCB (31,32,33, Fig. 4);
- A control unit/IC connected to/shared with each LED and controlling a driving current to the LED with each RGB LED unit emitting a white light (34, Fig. 4) and disposed outside of the LED units (Fig. 4); and
- A memory for storing driving data for each LED (Paragraph 18 discloses modulation requiring preset conditions, i.e. memory).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 6, 7, 19, 20, 29 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over WANG ET AL. (US 2005/0128767). WANG discloses the claimed

invention including a circuit board, but does not specifically disclose a circuit board made of Al or Cu. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to construct a circuit board of Al or Cu, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

4. Claims 9, 10, 13 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over WANG ET AL. (US 2005/0128767). WANG discloses the claimed invention, but does not specifically disclose pins of varying numbers. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize pins of varying numbers, since it has been held that the mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

5. Claims 11, 12, 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over WANG ET AL. (US 2005/0128767). WANG discloses the claimed invention, but does not specifically disclose LEDs connected in series or in parallel. However, depending on design choice, connections via parallel or series are well known in the art. As such, it would have been obvious to one of ordinary skill in the art at the time of invention to connect the LEDs in series or parallel.

Response to Amendment

6. The amendment filed 12/28/2005 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no

amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows:

- “LED units...connected in a shared manner to LEDs of like color” per Line 6; and
- “the control unit being operable to adaptively control” per Line 7.

Applicant is required to cancel the new matter in the reply to this Office Action.

Response to Arguments

7. Applicant's arguments filed 12/28/2005 have been fully considered but they are not persuasive.
8. Applicant argues that rearrangement of the control unit, i.e. “at least one control unit disposed outside...[these] LED units” sufficiently distinguishes the claimed invention over the prior art of record. Notably, locating a control unit “outside the...LED units” in addition to Applicant's specification further defining that “the control unit is located on any face of the [PCB]” (Paragraph 19) coincides with the prior art of record. WANG (US 2005/0128767) discloses a control (34) disposed outside the LED units 31,32,33, Fig. 4). Moreover, merely rearranging parts of an invention has been held to involve only routine skill in the art. *In re Japikse*, 86 USPQ 70.
9. Applicant's amended language: (1) “LED units...connected in a shared manner to LEDs of like color” per Line 6; and (2) “the control unit being operable to adaptively control” per Line 7 are not supported by the original disclosure. Furthermore, Applicant does not clearly set forth the manner of LED connection based on color nor how the

controller is adaptive. Without original support for the added language to the claims, the newly added language has been afforded no weight.

10. The rejection of Claims 1, 14 and 24 are maintained.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

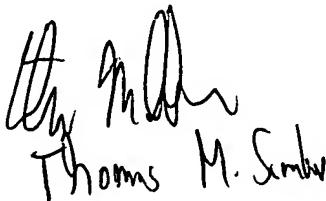
Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Adam C. Rehm whose telephone number is 571.272.8589. The examiner can normally be reached on M-F 9-5:30 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on 571.272.2378. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ACR
2/23/2006


Thomas M. Semb
Art Unit 2875
Primary Examiner